

### **Remarks**

Upon entry of this amendment, Claims 1 to 11 are currently pending. Independent Claims 1 and 11 are amended to better describe the present invention. Claim 4 is amended to depend from claim 1. Support for this amendment can be found, for example, in FIGS.9-11, and in the Specification at pages 18-21, and in the original claims, specifically original claims 2, 3 and 12 to 14. Additionally, support for the amendment to Claim 1 can be found in the specification at page 7, lines 25 to 30. A Request for Continued Examination is filed concurrently with this Amendment for the Examiner to consider the amendments to the Claims.

In the Office Action, the Examiner maintained rejects Claims 1-5, 8 and 11-13 and 15 under 35 U.S.C. 103(a) as being unpatentable over Soichiro Kawakami (JP61037969) in view of Ohashi (U.S. Patent No. 6,059,885). Applicant respectfully traverses this rejection and submits that the amended claims are patentable over the cited references.

The Examiner states that Kawakami does not teach a gas flow divider, among other features. The Examiner argues that Ohashi teaches a gas flow divider such that in combination, the two references would have rendered the present invention obvious to one of ordinary skill in the art at the time of the invention. Applicant respectfully traverses the rejections, and submits that the present invention is patentable over the cited references.

Applicant respectfully submits that Ohashi does not teach a gas flow divider as recited in Applicant's amended claims. Ohashi does not teach a disk (Figure 4) having a central orifice (17a) as recited by the Examiner. Column 14 of Ohashi at lines 45 to 48 describes item 17a as *small-diameter holes*, not a central orifice. Further, the Examiner characterizes item 17b of Ohashi as a plurality of small diameter holes, but again at column 14 lines 45 to 48 Ohashi describes item 17b as *large-diameter* gas holes. Thus, Applicant respectfully submits that the Examiner appears to have the items backwards, and even if there was a suggestion to reverse such elements, neither elements 17a or 17b are a *central* orifice forming a first gas flow path as recited in Applicant's amended claims.

Further, when discussing the flange element, the Examiner references Item 21 of Figure 6 of Ohashi as disclosing an elongated inner tube. Applicant submits that Item 21 of Figure 6 is not an elongated inner tube, but is a *hollow annular portion* 21 as recited in Ohashi at col. 17, lines 14-15.

Further, the motivation of Ohashi is not to provide uniform gas flow from a metering tube *along its length*, as claimed in the present invention. The motivation of Ohashi is to suppress occurrences of gas eddy flow and disturbance of gas flow due to ascent of gases in a reactor (col. 3 lines 40 – 45), and this is achieved by a straightening vane having a *specific structure* disposed in a *specific arrangement* so that the *gas flow rate is varied* between the center portion and the outer peripheral portion in the reactor (col. 3 lines 50 – 54). Ohashi teaches promoting flow of gases at different velocities in order to prevent gas eddy disturbances which lead to particles adhering to the walls which can cause defects in the film (see col. 4, lines 1 – 10 and lines 25 – 30).

This purpose is very different than that disclosed in Kawakami. Ohashi says that “... the inventors of this applicant have made detailed consideration of the phenomena...” and “ they have observed such a phenomena that lots of particles adhering to the wall of the reactor also adhere to a wafer ...” col. 2, lines 29 – 37 of Ohashi. The apparatus and purpose of Ohashi and Kawakami are distinct, and Applicant respectfully submits that there is no motivation to combine the two references. Moreover, Ohashi stresses that its straightening vane is a specific structure disposed in a specific arrangement, and in Applicant’s view the Ohashi design is for a specific purpose not reasonably combined with Kawakami. Additionally, as discussed above, Ohashi does not teach or suggest a flow divider as recited in Applicant’s claim, and thus any purported combination would not arrive at the claimed invention.

Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami and Ohashi in view of U.S. Patent No. 5,685,942 (Ishi). Applicant respectfully traverses. Claim 14 has been canceled. As discussed above, Kawakami and Ohashi do not teach or suggest Applicant’s amended claims. Applicant respectfully submits that Ishi adds nothing more. At column 8, lines 16-22 and FIG. 4, Ishi describes a conductive supply pipe connected to a gas inlet and a gas supply source. Ishi does not teach or suggest a block having a pocket sealed with a cover to create a confined passage. Any combinations of Kawakami, Ohashi and Ishi, which Applicant believes there is no motivation for one of ordinary skill to do so, will not achieve the invention of Claim 6.


Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami and Ohashi in view of U.S. Patent No. 4,836,246 (Lemp). Applicant respectfully traverses.

Kawakami and Ohashi are discussed above. Again, Lemp adds nothing more. At column 2, lines 24-40, Lemp teaches a support plug having an aperture to support a first tube in one end. The support plug is not a standoff spacer recited in Claim 7 which axially align the inner tube inside the outer tube and provide passage in the annular space formed between the inner and outer tubes. Accordingly, any combination of Kawakami, Ohashi and Ishi does not arrive at the invention of Claim 7.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami and Ohashi in view of U.S. Patent No. 5,849,088 (DeDontney). Applicant respectfully traverses. Kawakami and Ohashi are discussed above. DeDontney does not teach or suggest a gas metering tube as recited in Claim 1. Any combinations of Kawakami, Ohashi and DeDontney, which Applicant believes there is no motivation for one of ordinary skill to do so, will not achieve the invention of Claims 9 and 10.

In view of the foregoing, it is respectfully submitted that this application is now in condition for allowance. If any matters can be resolved by telephone, the Examiner is invited to call the undersigned attorney at the telephone number listed below. The Commissioner is hereby authorized to charge any other fees determined to be due to Deposit Account 50-2319 (Order No. A-67178-1/MSS (463035-420)).

Respectfully submitted,

  
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